DOCUMENT RESUME

ED 188 728 JC 800 442

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TITLE Comparison of the Grade Point Averages of Registered Nurses from Diploma Programs with Registered Nurses from Associate Degree Programs.
PUB DATE 5 Feb 80
NOTE 21p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Associate Degrees; Bachelors Degrees; *College Transfer Students; Comparative Analysis; *Educational Background; *Grade Point Average; *Nursing Education; Postsecondary Education; *Teaching Hospitals; Transfer Policy

ABSTRACT

The transcripts of the 40 students who graduated from Castleton State College (CSC) with a Bachelor of Science in Nursing in 1977, 1978, or 1979 were examined to determine whether registered nurses who graduated from associate degree programs earned higher grade point averages (GPA's) than registered nurses who graduated from hospital-based diploma programs. In determining students' cumulative GPA, grades earned by students while completing associate degree requirements at CSC were eliminated, as were grades earned by students majoring in another area before transferring to the nursing program. Data analysis revealed no significant differences between the GPA's of the 17 students who had begun their upper division work with an associate degree and those of the 23 students who had entered CSC from a hospital-based diploma program. Based upon these findings, it was recommended that CSC continue to admit students from hospital-based programs and to award them lower division credit for their prior learning. The study report reviews literature focusing on the differences between nurses with bachelor's degrees and those without and provides a bibliography. (JP)

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# COMPARISON OF THE GRADE POINT AVERAGES OF REGISTERED NURSES FROM DIPLOMA PROGRAMS WITH REGISTERED NURSES FROM ASSOCIATE DEGREE PROGRAMS

by

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COMPARISON OF THE GRADE POINT AVERAGES OF REGISTERED NURSES FROM DIPLOMA PROGRAMS WITH REGISTERED NURSES FROM ASSOCIATE DEGREE PROGRAMS

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This document reports on a study examining the differences in the grade point averages of registered nurses in an upper division baccalaureate nursing program who graduated from collegiate and non collegiate generic nursing programs. The hypothesis tested was that nurses graduating from an associate degree collegiate program would earn significantly higher grades in the baccalaureate program than nurses who graduated from hospital based diploma programs. Forty graduates of the baccalaureate program were included in the study. Twenty-three were from diploma programs and seventeen were from associate degree programs. Results of the study demonstrated no significant differences between the grade point averages of the two groups. The t-test value was 1.36 and was not significant at the .05 level. Conclusions of the study demonstrated that there was no significant difference between the two groups in their ability to achieve in college as indicated by the grades they earned. Recommendations were a) the existing policy of permitting registered nurses from diploma programs to enter the upper division baccalaureate program without requiring challenging examinations be continued: b) the diploma registered nurse be awarded up to sixty credits for course work documented on the hospital based nursing programs' official transcript.

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# Chapter 1

# INTRODUCTION

## The Problem

Even though considered as terminal programs, Registered Nurses (RN) from hospital based diploma programs and associate degree (AD) programs are seeking baccalaureate degrees in nursing in increasingly greater numbers. However, in the process of meeting learning needs of these groups academic problems may occur because the two basic educational programs are different in their emphasis. Associate degree programs give equal emphasis to liberal arts and nursing courses; diploma programs primarily emphasize nursing courses. The AD graduate should move with ease and have the ability to complete required upper division course work without difficulty. However, as adult learners, the diploma nurse should also be able to complete course work successfully. The diploma nurse will be motivated to fill this gap and, thus, make up for the differences in their basic preparation. If a difference does exist between the two groups it could possible be demonstrated by the grades earned in courses, with the presumption that the AD nurse would earn higher grades because of their better liberal arts base.

In 1975 Castleton State College (CSC) developed and implemented an upper division program for nurses from associate degree

and diploma schools. This program was in response to the request by many RNs and because the National League for Nursing (1974) and the American Nurses Association (1976) believed that such programs should be made readily available. Muzia and Ohoshi (1979:528) and the two professional organizations opined that these programs were to aid RNs who seek baccularoate degrees for professional development and career mobility.

In developing the upper division program the basic academic preparation of RNs from diploma and associate degree programs were reviewed. Many similarities existed, e.g., anatomy and physiology, introductory courses in psychology and sociology, and nursing. However, many differences also existed. AD programs emphasized liberal arts courses and nursing courses equally; whereas the diploma programs gave greater emphasis to nursing courses. Through the review, decisions were made in awarding college credit for course work completed by the RN from the diploma program, if that course appeared on their official transcript.

The CSC program has been moving toward seeking National League for Nursing accreditation. To be known as a quality program, all nursing schools actively seek and want National League for Nursing accreditation (1978). However, prior to starting the process the question must be asked concerning the policy of awarding diploma graduate nurses credits by the college. Is the policy as written a sound one? Should it be continued as currently published, or must their be revisions?

This study was based on the premise that even though the basic programs do vary, the diploma RN has had a sound educational foundation that can be built upon and, if a knowledge gap was present, the RN, as an adult learner, would be able to bridge the gap and do well in upper division courses. This fact was based upon Knowles (1970) belief that the adult was motivated to learn what they feel was necessary.

This study was an effort to conclusively demonstrate that academically, diploma graduates do as well as AD graduates and, therefore, the policy as written was a sound one and should be continued. The study compared the academic achievement of the two groups of RNs to determine whether there was any significant difference between the grade point averages (GPA) of the two groups after completion of the upper division nursing program.

## Review of the Literature

More and more Registered Nurses graduating from associate degree and diploma schools of nursing are desiring to return to school in order to earn a baccalaureate degree in nursing. Nurses had a variety of reasons for seeking the degree. McGrath and Bacon (1979:41) cited that nurses want to be more independent practioners, assume leadership positions, increase their own self-worth as an educated individual and fear that one day the entry level for nursing will be the baccalaureate degree. Also, O'Donovan (1974:36) believed that without advanced preparation, promotional opportunities for nurses tend to be restricted.

Philosophically there are differences between the non baccalaureate and baccalaureate programs. According to the National League for Nursing (NLN) (1974) non baccalaureate degreed nurses are prepared for practice with emphasis on the dependent functions of the nurse and the individual patient with one episode of illness. The generic program is influenced by the medical model, looking at the individual patient and pathology, and was technology oriented (Muzio and Ohashi, 1979).

The baccalaureate degree, according to the NLN (1974), gives the nurse a broader understanding and further skills based upon sciences and humanities. Soules (1978) and McGrath and Bacon (1979) defined the baccalaureate prepared nurse as an independent practioner who was capable of higher levels of problem solving and decision making based on a broader foundation of physical and behavioral sciences. The Bachelor of Science degreed nurses' perspective changes from the individual episode of illness to include and encompass the whole family. In other words, the NLN opined, these nurses were prepared for true leadership roles in nursing.

In an attempt to demonstrate the differences between baccalaureate and non baccalaureate prepared nurses, Soules (1978) completed a study of thirteen California hospitals to determine which type of graduates were more prone to be advanced into supervisory positions. Surprisingly it was not the BSN graduate but the diploma graduate who was promoted first. No mention was made

of whether the nurses in the study were from NLN accredited programs which may or may not have biased the study.

In another study, Richards (1972) attempted to define differences between students of the three basic programs (diploma, associate degree and baccalaureate degree). She found no statistical differences in the three groups' intelligence or leadership potential. All three groups viewed nursing similarly when referring to hospitals. The only significant difference was that baccalaureate students had a more professional ideal of nursing.

To be identified as a quality program, a program voluntarily seeks NLN accreditation. Graduates fro_ accredited programs find it easier to be admitted to graduate nursing schools and graduation from an accredited school was required in most instances for positions in goverment agencies (NLN:1974). These governmental agencies include institutions such as the Veteran's Administration, military nurse corps, and Public Health Administrations.

In seeking NLN accreditation, institutions offering nursing programs must be concerned about maintaining and promoting quality. Upper division nursing programs admit graduates from colleges who have earned an associate degree and from hospital diploma schools that are not approved by a regional higher education accrediting board. Kimmel (1972) believes that if the equality of educational recognition was to be accorded these students and learners, than it was important that standards of quality be retained. Therefore, there should be a difference in how well students from the two educational programs perform in an upper

division program for nurses. Students from associate degree programs have a better foundation of liberal arts subjects and should do better academically. Abraham (1976), however, discovered in a recent study in which he compared students from non collegiate programs with collegiate students in the same major, that students from the non collegiate program tended to have similar or better grade point averages than did the other students. McClusky (1974:13) believed that students from non collegiate programs were usually the more academically stronger students and therefore, there would be a reasonable high positive coorelation between these students and grade point averages. The non collegiate students earned the higher grade point average demonstrating that these students had acquired college level knowledge.

Beerup and Good (1979) stated that diploma and associate degree nurses, with professional experience, should be allowed to enter collegiate programs at the junior or senior level without pretesting. They opined that it was not only expensive and unfair, but even illogical to make nurses repeat, or take tests, on what they had learned previously.

Statement of the Hypothesis

The purpose of this study was to test the following hypothesis: Registered Nurses who graduated from associate degree programs will earn significantly higher grade point averages in upper division college courses than will registered nurses who graduated from diploma programs.

Operational Definitions

Associate Degree Programs: A college-based program that awards an associate degree in nursing upon successful completion of the course of study.

Diploma Programs: A hospital-based program that awards a diploma upon successful completion of the course of study. These programs are not usually accredited by a regional higher educational agency.

Grade Point: Determined by changing the letter grade submitted by faculty to a numerical equivalent as stated by college policy, e.g., A equals 4.0, A- equals 3.7, B+ equals 3.3, B equals 3.0, B- equals 2.7, etc.

Grade point average: Determined by adding the number of grade points for all courses taken and dividing by the number of credits attempted by the Registered Nurses.

Registered Nurses: Individuals who have graduated from an educational program for nurses; who have successfully passed a licensure examination and are registered in the state of Vermont.

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## Chapter 2

## METHOD AND PROCEDURE

### Subjects

The sample population consisted of all Registered Nurses who had graduated with a Bachelor of Science in Nursing from Castleton State College, since 1977. The number of students totaled forty.

The Registered Nurse population was primarily from white middle class, rural Vermont and adjacent New York state. Less than one percent of this population was from minorities as identified by the Federal Government. This fact was reflected in the compostition of the sample population.

### Independent Variable

The independent variable was the nursing school from which Registered Nurses graduated. The students were either graduates of a) an associate degree program based in a college or university, or, b) a hospital based diploma program. The type of program, whether diploma or associate degree, was the choice of the student.

### Dependent Variable

The dependent variable was the level of achievement attained by the students as indicated by their grade point averages.

The level of achievement was considered to be that earned by the nurse as a result of completing college courses

at Castleton State College and finishing all requirements for the baccalaureate degree.

Procedure

The registrar of Castleton State College provided a list of students who graduated with a Bachelor of Science in nursing in May 1977, May 1978, and May 1979. The registrar also provided the names of Registered Nurses who completed degree requirements at the end of the summer 1979 session but would not receive their official degree until May 1980.

The final transcript of each graduate on the list was obtained. The grade points and credits earned at Castleton State College were extracted from the transcript for the study.

To ensure that all grade points used in the study were those earned while pursuing the upper division nursing major, the following were eliminated from the study:

1. Grades earned by students while completing requirements at Castleton State College for the Associate in Science degree in nursing.

2. Grades earned by students majoring in another area at Castleton State College before transferring into the nursing major.

The grade point averages were obtained by the following method: Grade points for each graduate were added together; the resulting total was than divided by the number of credits taken at Castleton State College by the student. The final score was the grade point average for the graduate and was used for the data analysis.

## Protection of Human Rights

Individuals included in the study did not have their rights to privacy violated. The right was protected by the following procedure: Names received from the registrar were used to identify students' records and subsequently their grades. After obtaining and recording grades from each transcript, student names were destroyed as there was no need to include them in the study.

## Data Analysis

The null hypothesis tested was: There will be no significant difference between the grade point averages earned at Castleton State College by nurses who graduated from hospital based diploma programs and nurses who graduated from associate degree collegiate programs.

The collected data was statistacally tested by comparing the means of the grade point averages of diploma and associate degree nurses. The statistical method used to determine the significance was the t-test as described in Tuckman (1972:231). The null hypothesis would be rejected at the .05 level of significance for a two tailed test.

## Limitations of the Study

The limitations of the study were identified as follows:

1. The sample population used was small and without minority groups represented. Therefore, the study did not necessarily represent all Registered Nurses from diploma and associate degree programs.

2. Intervening variables such as age, family background and nursing responsibilities were not considered in the study and may have biased the earned grade point averages of nurses used in the study.

3. Collection of data was limited to one group of students. Thus, results may have no meaning to groups of students majoring in other disciplines.

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## Chapter 3

## RESULTS

The hypothesis in null format stated that regardless of the school of nursing attended by the Registered Nurse, whether collegiate or non collegiate, there will be no significant difference in grade point averages earned in the upper division nursing program at Castleton State College.

A comparison of the means of the two groups revealed that there was no significant difference between the grade point averages of the two groups. The results of the t-test are shown in Table 1. The t value was 1.35. Since the results were not significant at the .05 level for a two tailed test, the null hypothesis cannot be rejected.

Table 1

The Number of Students, the Means of the Grade Point Averages, Standard Deviation, and the Results of the t test

| Groups | Student N | Grade Point Averages X | SD | t value* |
|---|---|---|---|---|
| Diploma R.N. | 23 | 3.47 | 0.12 | 1.36 |
| A.D. R.N. | 17 | 3.32 | | |

*Critical t value at .05 level of significance was 2.02

## Chapter 4

## DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Through the conduction of this study the nurses graduating from the non collegiate hospital based diploma programs were obviously not at a disadvantage in the upper division baccalaureate program at Castleton State College. There was no significant difference between the non collegiate and collegiate nurses in their ability of earning grades.

One possible explanation for these results was that admission to the two programs leading to Registered Nurse licensure were selective. The individual seeking admission to diploma programs must usually take entrance examinations and have high school educational backgrounds similar to those required by students entering collegiate associate degree programs. As the associate degree and diploma students completed their respective programs, courses taken were similar in all areas except possible for english and fine arts subjects.

The results of this study were consistant with findings of other investigators (Abrahm, 1975; Kimmel, 1972; McCluskey, 1974). They found that students from the non collegiate programs would earn similar, or even higher, grade point averages then students in collegiate associate degree programs. In other words, there were no differences between the two groups academic ability and foundation course work. Therefore, their ability to be

successful in an upper division program in nursing was equivalent so nurses from the non collegiate program should be given the opportunity to enter upper division programs at the junior level.

This fact was further emphasized, including that pre-testing or challenging examinations were unfair to diploma graduates, by Beerup and Good (1979). They believed that it was a waste of time and money for these students to have to convert their knowledge into college credits throguh tests prepared by instructors of schools or by various commercial testing companies. The results of this study, even though limited, demonstrated that, as Beerup and Good (1979) cited, R.N.s are justified in entering upper division nursing programs at the junior level without testing and to do otherwise is unfair and costly to these nurses.

Recommendations from this study were that the existing policy at Castleton State College be continued. Registered Nurses from diploma programs, with six months experience, are permitted to enter the upper division program at the junior level. Registered Nurses from diploma programs are awarded up to sixty credits for those courses that appear on their schools official transcript. The existing policy recognizes the Registered Nurses' past education and their experience since graduating and becoming licensed. The upper division program then builds upon this past experience and education, giving the nurse broader, more complex, in depth knowledge, thus enabling these nurses to become more effective problem solvers and decision makers in their practice.

Further studies suggested by these results were 1) to study other upper division programs in other colleges to determine the difference between associate degree and diploma Registered nurses. 2) to enlarge the investigation to study the academic achievement of Registered Nurses from diploma and associate degree schools who continue their education in those programs having generic baccalaureate students of nursing. 3) to investigate the differences of success of students graduating from upper division programs with those graduate nurses from generic baccalaureate degree programs in graduate nursing programs. 4) to do a follow up study of nurses graduating from upper division nursing programs to determine whether the graduate is indeed working at a higher level of accomplishment.

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